



mslo3

mslo1

dslo1

mslo3

mslo1

dslo1

mslo3

mslo1

dslo1

mslo3

mslo1

dslo1

mslo3

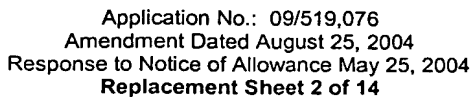
mslo1

dslo1

S2

S4

FIG. 1A(1)



55

FIG. 1A(2)



mslo3	S	Y	F	E	S	I	Y	L	V	T	A	T	M	S	T	B	G	F	G	D	V	V	A	K	T	S	L	G	R
mslo1	T	Y	W	E	C	V	Y	L	L	M	V	T	M	S	T	V	G	Y	G	D	V	Y	A	K	T	T	L	G	R
dslo1	S	Y	W	T	C	V	Y	F	K	U	V	T	M	S	T	V	G	Y	G	D	V	Y	C	E	T	V	L	G	R
P																													
mslo3	T	K	P	Y	E	A	V	K	G	K	K	F	I	V	V	C	G	N	I	T	V	D	S	V	T	A	F	L	R
mslo1	G	G	S	Y	S	A	V	S	G	R	K	H	I	V	V	C	G	H	I	T	L	E	S	V	S	N	F	L	K
dslo1	G	G	T	Y	S	K	D	P	R	K	R	H	I	V	V	C	G	H	I	T	Y	E	E	V	S	H	F	L	K
mslo3	C	H	T	S	C	T	N	F	V	C	G	T	A	L	K	F	E	D	L	K	R	V	A	V	E	N	S	E	A
mslo1	R	H	F	T	Q	V	E	F	Y	Q	G	S	V	L	N	P	H	D	L	A	R	V	K	I	E	S	A	D	A
dslo1	R	H	F	T	T	V	E	F	F	Q	G	T	I	M	N	P	I	D	L	Q	R	V	K	V	K	E	A	D	A
mslo3	Q	T	R	V	I	I	Q	I	L	Q	S	Q	N	K	V	F	L	S	K	I	P	N	W	D	W	S	A	G	D
mslo1	K	I	R	I	I	T	Q	M	L	Q	Y	H	N	K	A	H	L	L	N	I	P	S	W	N	W	K	E	G	D
dslo1	D	I	R	V	I	I	Q	L	M	Q	Y	H	N	K	A	Y	L	L	N	I	P	S	W	D	W	K	Q	G	D
mslo3	E	Q	N	.	Q	K	V	F	P	K	H	P	W	Q	K	H	F	L	N	G	L	K	N	K	I	L	T	Q	R
mslo1	M	R	S	F	I	K	I	E	E	.	D	T	W	Q	K	Y	Y	L	E	G	V	S	N	E	M	Y	T	E	Y
dslo1	M	R	S	F	K	T	S	P	D	M	Q	S	W	T	N	D	Y	L	R	G	T	G	M	E	M	Y	T	E	T
mslo3	P	F	F	H	S	C	.	C	T	L	I	L	N	P	S	S	Q	V	R	L	N	K	D	T	L	G	F	F	I
mslo1	S	A	N	R	.	.	E	S	R	T	L	I	N	P	G	N	H	L	K	I	Q	E	G	T	L	G	F	F	I
dslo1	G	A	E	E	G	A	D	S	K	T	S	I	N	P	.	R	G	A	K	I	Q	A	N	T	Q	G	F	F	I

FIG. 1A(3)



I	F	I	V	F	F	T	L	G	S	L	I	L	F	A	N	Y	I	P	E	M	V	E	L	F	S	T	R	K	K	Y	321
L	F	M	V	F	F	I	L	G	G	L	A	M	F	A	S	Y	V	P	E	I	I	E	L	I	G	N	R	K	K	Y	332
T	F	L	V	F	F	L	L	V	G	L	A	V	F	A	S	W	I	P	E	I	T	E	L	A	A	Q	R	S	K	Y	346
N	F	L	H	W	K	S	G	E	I	N	I	E	I	V	F	L	G	E	T	L	P	C	L	E	L	E	T	L	L	K	381
D	F	L	H	K	D	R	D	V	N	V	E	I	V	F	L	H	N	I	S	P	P	N	L	E	L	E	A	L	F	K	392
D	F	L	H	E	D	D	E	D	V	D	V	E	V	F	L	H	R	K	P	P	D	L	E	L	E	G	L	F	K	406	
C	L	I	L	A	N	H	F	C	S	D	L	H	D	E	D	N	S	N	I	M	R	V	L	S	I	K	N	Y	Y	P	441
C	L	I	L	A	N	K	Y	C	A	D	P	D	A	E	D	A	S	N	I	M	R	V	I	S	I	K	N	Y	H	P	452
C	L	V	L	A	N	K	Y	C	Z	D	P	D	A	E	D	A	A	N	I	M	R	V	I	S	I	K	N	Y	S	D	446
N	I	L	C	F	A	E	L	K	L	G	F	I	A	Q	G	C	L	V	P	G	L	C	T	F	L	T	T	L	F	I	501
D	A	I	C	L	A	E	L	K	L	G	F	I	A	Q	S	C	L	A	Q	G	L	S	T	M	L	A	N	L	F	S	512
D	V	I	C	L	A	E	L	K	L	G	F	I	A	Q	S	C	L	A	P	G	F	S	T	M	A	N	L	F	A	526	
L	S	N	D	F	V	G	M	T	F	P	Q	V	S	R	L	C	F	V	K	L	N	L	M	L	I	A	I	Q	H	K	560
L	S	S	A	F	V	G	L	S	F	P	T	V	C	E	L	C	F	V	K	L	K	L	L	M	I	A	I	E	Y	K	571
L	S	P	T	F	I	G	I	P	F	A	Q	A	T	E	L	C	R	S	K	L	K	L	L	L	A	I	E	I	K	586	
A	D	S	S	K	A	V	K	R	A	F	F	Y	C	S	N	C	H	S	D	V	C	N	P	E	L	I	G	K	C	N	619
A	S	D	A	K	E	V	K	R	A	F	F	Y	C	K	A	C	H	D	D	V	T	D	P	K	R	I	K	K	C	G	629
A	Q	S	A	D	E	V	K	R	A	W	F	Y	C	K	A	C	H	E	D	I	K	D	E	T	L	I	K	K	C	K	645

FIG. 1A(4)



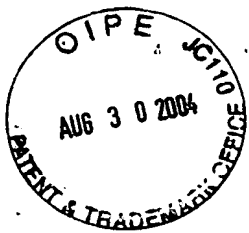
mslo3	C	K	.	.	I	K	S	R	.	.	.	.	.	.	.	.	.	.	.	Q	Q	L	K	A					
mslo1	C	R	R	L	I	Y	.	.	F	E	D	.	.	.	.	.	.	.	E	Q	P	P	T	L	S				
dslo1	C	K	N	L	T	V	Q	P	R	S	K	F	D	D	L	G	D	I	T	R	D	R	E	D	T	N	L	L	N	
mslo3	S	.	.	.	R	E	Q	P	S	L	I	T	I	T	N
mslo1	S	P	K	L	M	R	H	D	P	L	L	I	P	G	N	D	Q	I	D
dslo1	A	G	K	Q	V	N	K	V	K	P	T	V	N	V	S	R	Q	V	E	G	Q	V	I	S	P	S	Q	Y	N	
mslo3	.	.	.	.	.	.	.	.	M	L	D	S	S	G	M	F	H	W	C	R	A	M	P	L	D	K	V	V	L
mslo1	.	N	M	D	S	N	V	K	K	Y	D	S	T	G	M	F	H	W	C	A	P	K	E	I	E	K	V	I	L	
dslo1	F	D	F	E	K	T	E	M	K	Y	D	S	T	G	M	F	H	W	S	P	A	K	S	L	Q	D	C	I	L	
mslo3	F	V	M	P	L	R	A	S	N	Y	T	R	Q	E	L	K	D	I	V	F	I	G	S	L	E	Y	F	Q	R	
mslo1	L	V	M	P	L	R	A	S	N	F	H	Y	H	E	L	K	H	I	V	F	V	G	S	I	E	Y	L	K	R	
dslo1	L	V	M	P	L	R	A	S	N	F	H	Y	H	E	L	K	H	V	V	I	V	G	S	V	D	Y	I	R	R	
mslo3	C	S	M	C	V	I	L	A	T	P	Y	K	A	L	S	S	Q	I	L	V	D	T	E	A	I	M	A	T	L	
mslo1	C	D	M	C	V	I	L	S	A	N	Q	N	N	I	D	D	T	S	L	Q	D	K	E	C	I	L	A	S	L	
dslo1	C	D	M	C	C	I	L	S	A	K	V	P	S	N	D	D	P	T	L	A	D	K	E	A	I	L	A	S	L	
mslo3	P	S	S	A	F	D	S	K	E	R	K	Q	R	Y	K	.	.	.	Q	I	P	I	L	T	E	L	K	N	P	
mslo1	D	N	S	P	V	H	G	M	L	R	Q	P	S	I	T	T	G	V	N	I	P	I	I	T	E	L	V	N	D	
dslo1	A	G	S	P	I	.	.	V	L	Q	R	R	G	S	V	Y	G	A	N	V	P	M	I	T	E	L	V	N	D	
mslo3	V	F	S	D	T	F	L	D	S	L	L	A	T	S	F	Y	N	Y	H	V	V	E	L	L	Q	M	L	V	T	
mslo1	A	F	A	V	S	V	L	D	S	L	M	S	A	T	Y	F	N	D	N	I	L	T	L	I	R	T	L	V	T	

FIG. 1A(5)



P	T	I	M	V	M	K	S	S	L	T	D	F	T	T	S	S	N	I	H	A	S	M	S	T	E	I	H	T	C	F	661		
P	K	K	Q	R	N	G	.	.	.	.	.	.	G	M	R	N	.	.	.	.	.	.	.	.	.	.	S	P	N	T	661
R	N	V	R	R	P	N	G	T	G	N	G	T	G	G	M	H	M	N	S	T	R	A	A	A	A	A	A	A	A	705			
R	P	T	T	N	D	T	V	D	T	D	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	686
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	680
R	P	T	S	R	S	S	G	T	G	T	Q	N	Q	N	G	G	V	S	L	P	A	G	I	A	D	D	Q	S	K	D	765		
K	R	S	E	K	A	K	H	E	F	Q	N	H	I	V	V	C	V	F	G	D	A	Q	C	T	L	V	G	L	R	N	738		
T	R	S	E	A	A	M	T	V	L	S	G	H	V	V	V	C	I	F	G	D	V	S	S	A	L	I	G	L	R	N	739		
D	R	N	Q	A	A	M	T	V	L	N	G	H	V	V	V	C	L	F	A	D	P	D	S	P	L	I	G	L	R	N	825		
S9																																	
E	W	R	F	L	R	N	F	P	K	I	H	I	M	P	G	S	A	L	Y	M	G	D	L	I	A	V	N	V	E	Q	789		
E	W	E	T	L	H	N	F	P	K	V	S	I	L	P	G	T	P	L	S	R	A	D	L	R	A	V	N	I	N	L	799		
E	W	K	M	L	Q	N	L	P	K	I	S	V	L	N	G	S	P	L	S	R	A	D	L	R	A	V	N	V	N	L	885		
N	I	Q	S	L	R	I	T	S	P	T	P	G	S	S	K	S	E	V	K	847
N	I	K	S	M	Q	F	D	D	S	I	G	V	L	Q	A	N	S	Q	G	F	T	P	P	G	M	D	R	S	S	P	859		
N	I	K	A	M	T	F	D	D	T	I	G	V	L	S	Q	R	G	P	E	F	D	.	.	.	.	N	L	S	A	T	941
S	N	I	H	F	I	E	Q	M	G	G	L	D	G	M	L	K	G	T	S	L	H	L	S	T	S	F	S	T	G	A	904		
T	N	V	Q	F	L	D	Q	D	D	D	D	D	P	.	.	.	D	T	E	L	Y	L	T	Q	P	F	A	C	G	T	916		
G	N	V	Q	F	L	D	Q	D	D	D	D	D	P	.	.	.	D	T	E	L	Y	L	T	Q	P	F	A	C	G	T	996		
"Calcium Bowl"																																	
G	G	I	S	S	E	M	E	H	Y	L	V	K	E	K	P	Y	K	T	T	D	D	Y	E	A	I	K	S	.	G	962			
G	G	A	T	P	F	I	F	A	L	I	A	F	F	N	A	L	R	G	G	Y	S	T	P	Q	T	L	A	N	916				

FIG. 1A(6)



dslo1

A

F

A

V

S

V

L

D

S

L

M

S

T

T

Y

F

N

Q

N

A

L

T

L

I

R

S

L

I

T

mslo3

R

T

R

C

K

L

G

L

L

S

L

D

Q

T

V

L

S

G

I

N

P

R

K

T

F

G

Q

L

F

mslo1

R

D

R

C

R

V

A

Q

I

A

L

L

D

G

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F

A

D

L

G

D

G

C

Y

G

D

L

F

dslo1

R

D

R

C

R

V

G

Q

I

S

L

Y

D

G

P

L

A

Q

F

G

E

C

G

K

Y

G

D

L

F

mslo3

F

V

I

T

R

P

S

N

E

C

H

L

L

P

S

D

L

V

F

C

A

I

P

F

N

T

C

G

mslo1

Y

V

I

T

N

P

P

Y

E

E

E

L

V

P

T

D

L

I

F

C

L

M

Q

F

D

H

N

A

G

dslo1

Y

V

I

T

N

P

P

D

D

F

S

L

L

P

T

D

Q

V

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V

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F

D

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L

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mslo3

Q

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W

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G

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S

S

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R

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M

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P

T

I

F

T

Q

S

T

mslo1

R

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P

N

R

P

K

S

R

E

S

R

D

K

Q

N

A

T

R

M

T

R

M

G

Q

A

E

dslo1

D

N

S

U

FIG. 1A(7)



G	G	A	T	P	E	L	E	L	I	L	A	E	G	A	G	L	R	.	G	G	Y	S	T	V	E	S	L	S	N	1054	
C	G	S	L	D	N	F	G	I	L	C	V	B	L	Y	R	M	I	D	E	E	.	E	P	S	Q	E	H	K	R	1020	
C	K	A	L	K	T	Y	N	M	L	C	F	G	I	Y	R	L	R	D	A	H	L	S	T	P	S	Q	C	T	K	R	1034
V	A	A	L	K	S	Y	G	M	L	C	I	G	L	Y	R	F	R	D	T	S	.	S	S	C	D	A	S	S	K	R	1113
K	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	S	D	S	S	P	F	N	F	R	L	K	T	T	L	1064
Q	S	R	A	S	L	S	H	S	S	H	S	S	Q	S	S	S	K	K	S	S	S	V	H	S	I	P	S	T	A	N	1094
E	Y	K	P	P	A	V	R	A	P	A	G	G	R	G	T	N	T	Q	G	S	G	V	G	G	G	S	N	K	D	1172	
T	R	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	E	R	G	G	L	S	T	T	P	E	S	I	L	W	1110
E	K	W	F	T	D	E	P	D	N	A	Y	P	R	N	I	Q	I	K	P	M	S	T	M	M	A	N	Q	I	N	Q	1151
																														1175	
																														1112	
																														1169	

FIG. 1A(8)

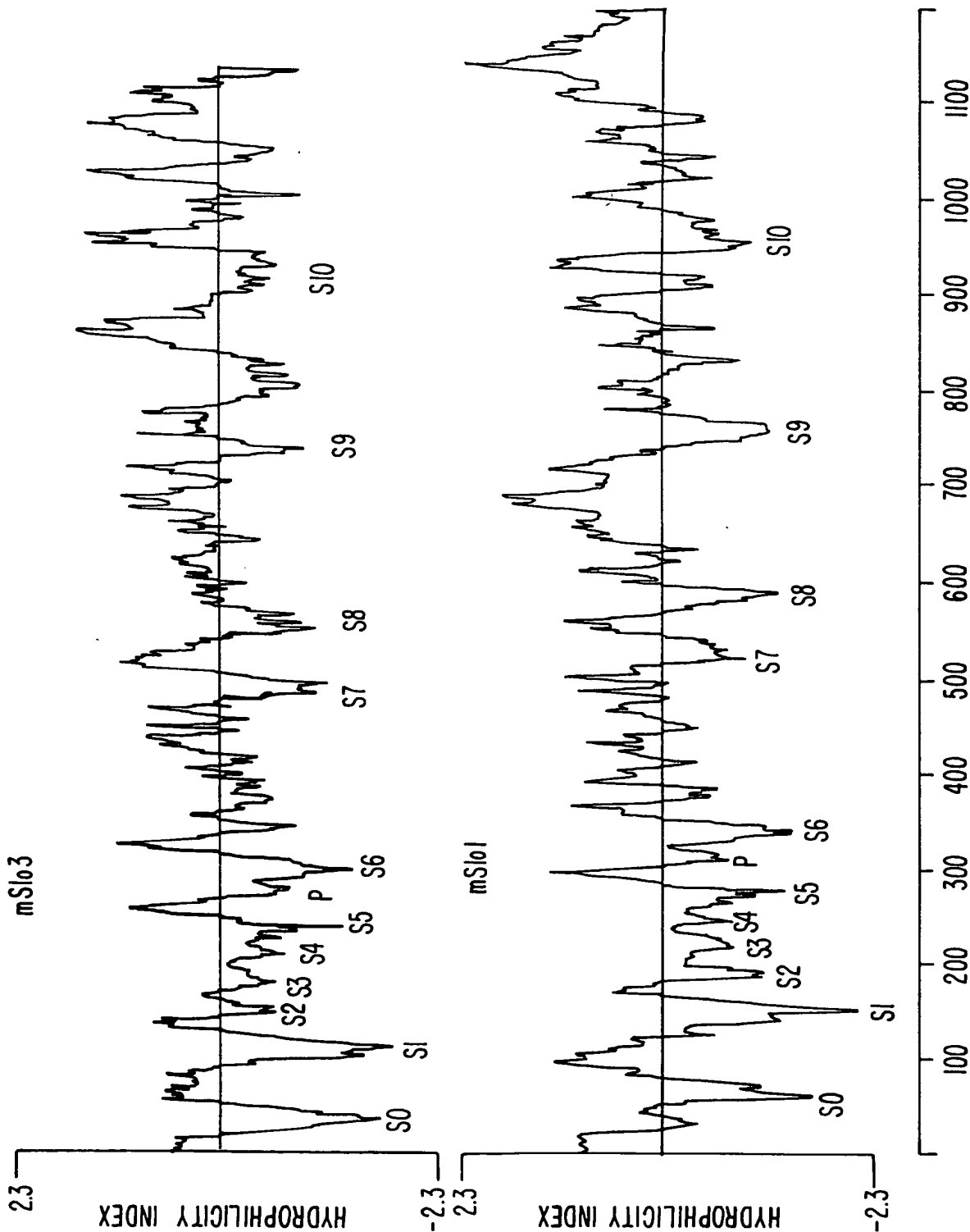
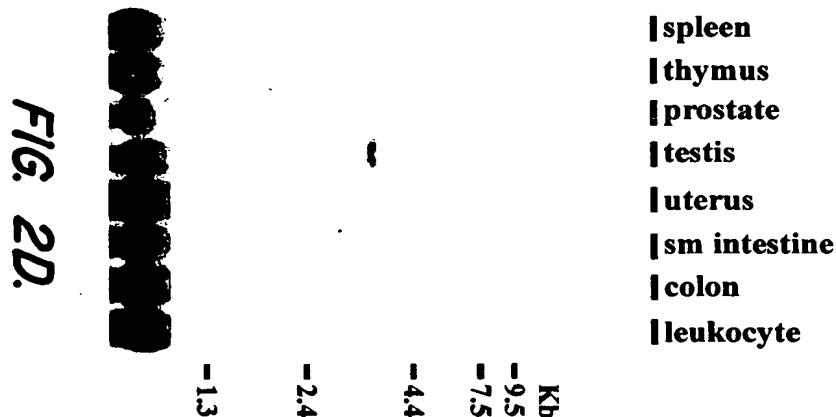
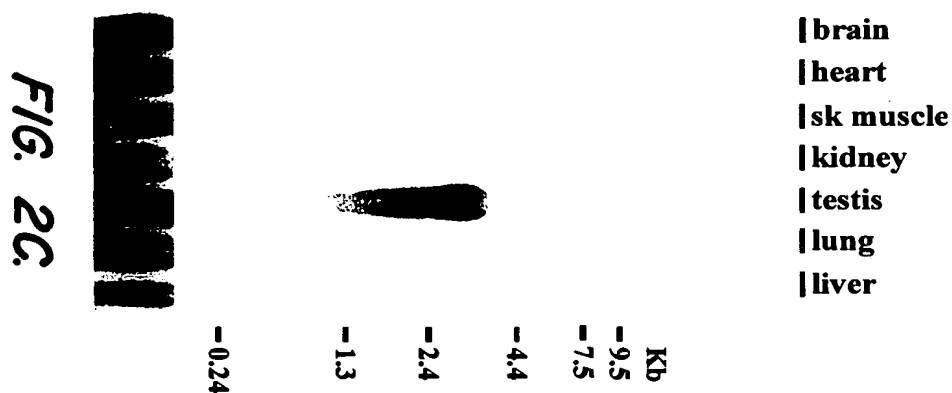
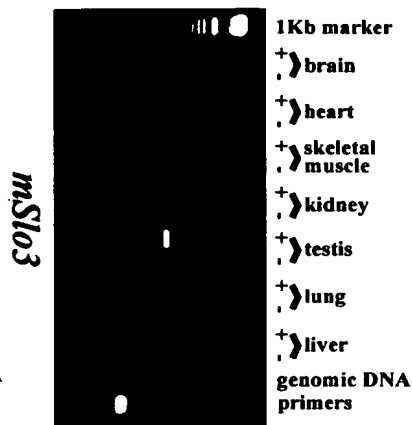
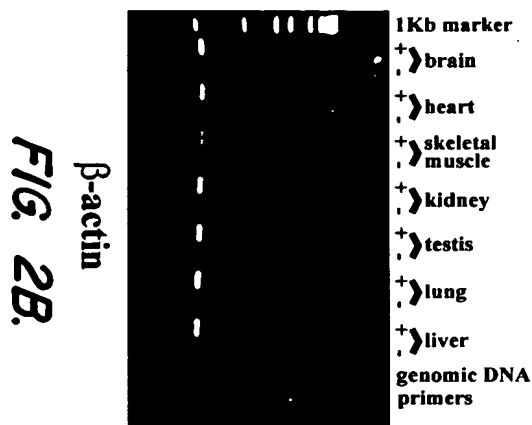
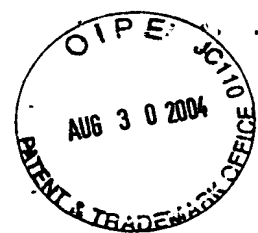
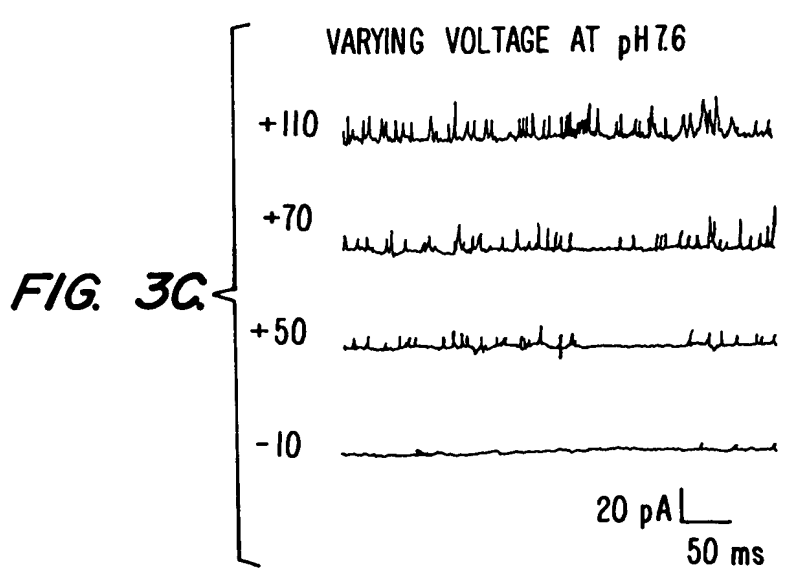
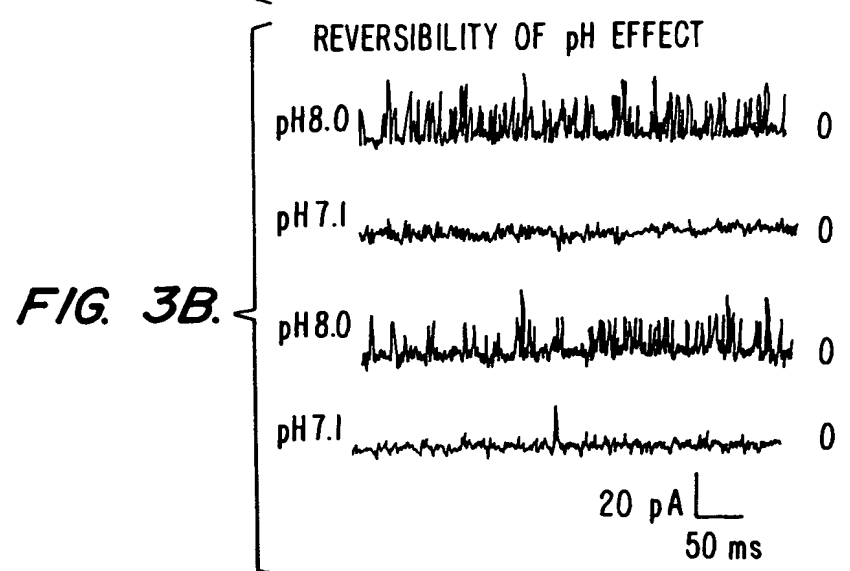
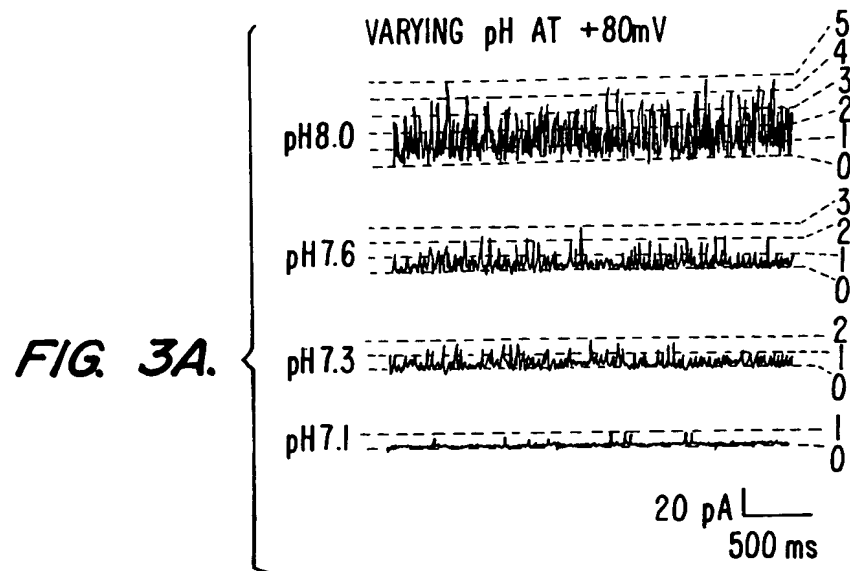
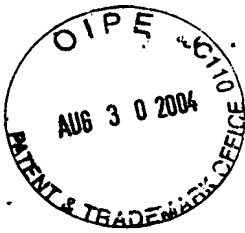


FIG. 1B.



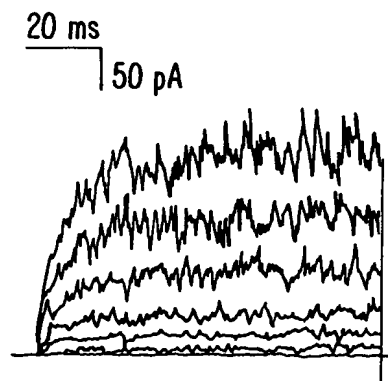
BEST AVAILABLE COPY



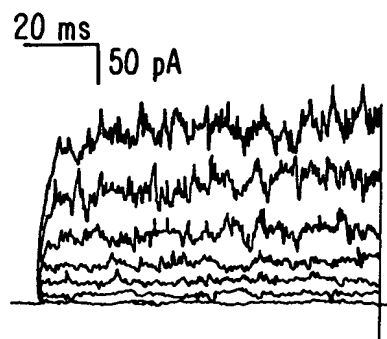
BEST AVAILABLE COPY



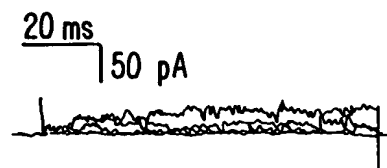
FIG. 3D.



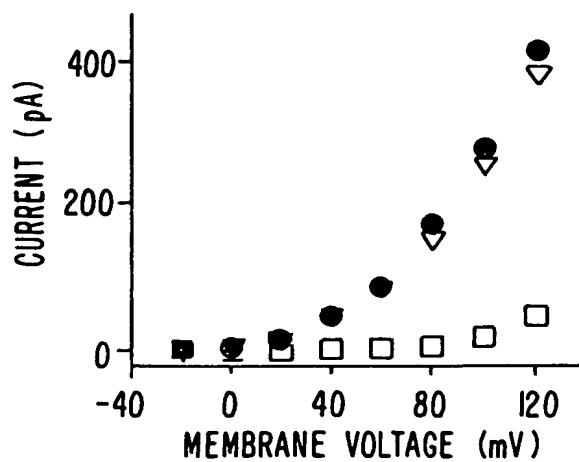
● pH8 - 100 μM $[\text{Ca}^{2+}]$



▽ pH8 - 0 μM $[\text{Ca}^{2+}]$



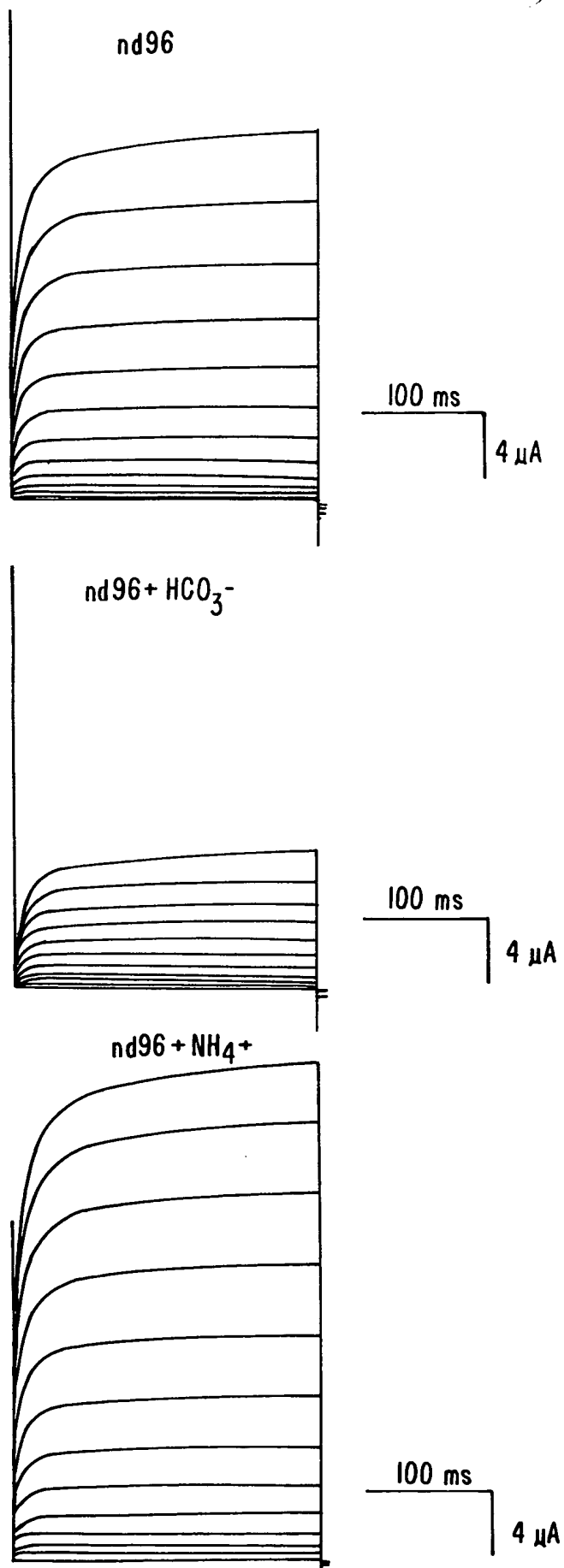
□ pH 7.1 - 0 μM $[\text{Ca}^{2+}]$



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FIG. 4A.



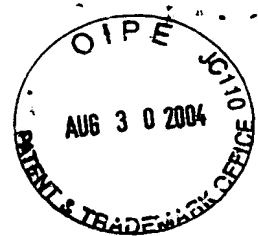


FIG. 4B.

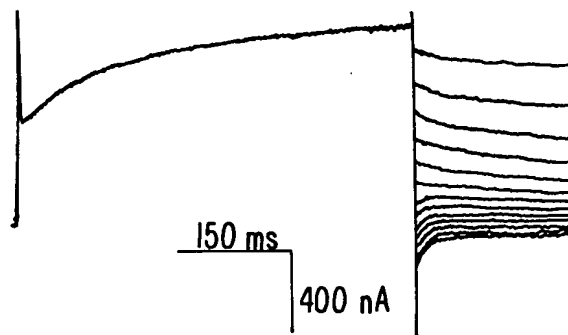


FIG. 4C.

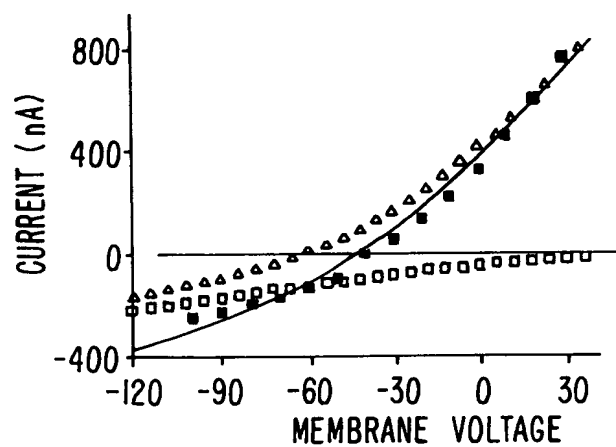
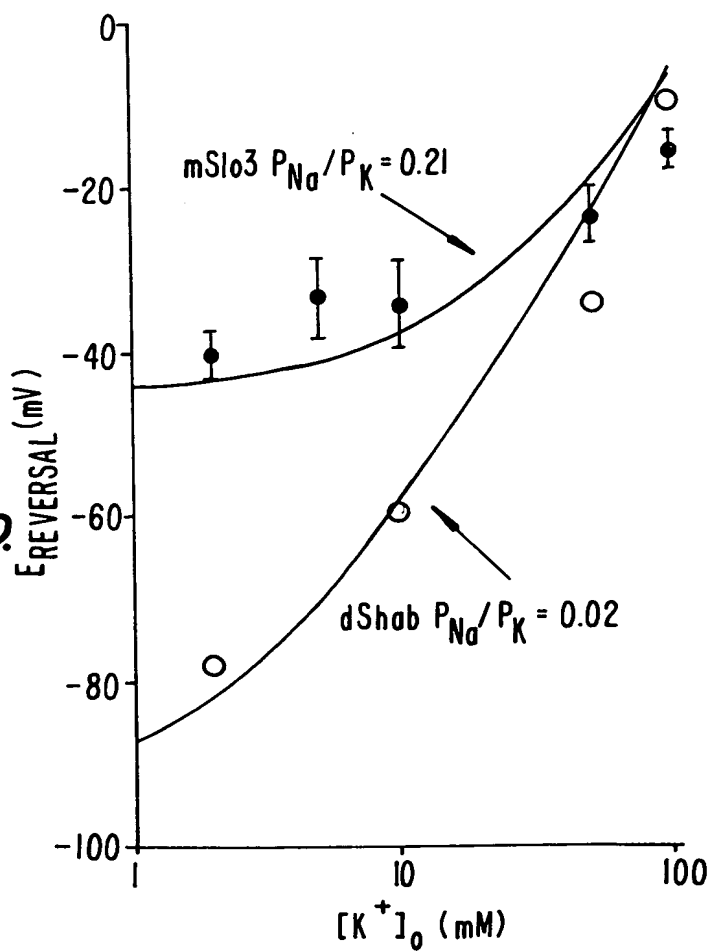


FIG. 4D.



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